

WHAT IS CLAIMED IS:

1. A viscoelastic foam made from a Part A composition and a Part B composition, said Part A composition comprising 20-50 weight percent isocyanate (NCO), said Part B composition comprising at least 20 parts by weight of a first, amine-based polyether polyol, at least 10 parts by weight of a second polyol selected from the group consisting of filled polyether polyols and unfilled polyether polyols, and 0.4-4 parts by weight catalyst, said Part A and Part B compositions being combined to provide said viscoelastic foam having an index of 70-130.

2. A viscoelastic foam made from a Part A composition and a Part B composition, said Part A composition comprising 20-50 weight percent isocyanate (NCO), said Part B composition comprising at least 20 parts by weight of a first, amine-based polyether polyol, at least 10 parts by weight of a second, tri-functional polyether polyol, and 0.4-4 parts by weight catalyst, said Part A and Part B compositions being combined to provide said viscoelastic foam having an index of 70-130.

3. A viscoelastic foam according to claim 1 or 2, having an index of 80-115.

4. A viscoelastic foam according to claim 1 or 2, having an index of about 90-100.

5. A viscoelastic foam according to claim 1 or 2, said Part A composition further comprising about 3 parts by weight water.

6. A viscoelastic foam according to claim 1 or 2, said Part A composition further comprising about 6 parts by weight black paste.

7. A viscoelastic foam according to claim 1 or 2, said isocyanate in said Part A composition being present in the form of 4,4'-MDI.

8. A viscoelastic foam according to claim 7, said 4,4'-MDI being present in said Part A composition in an amount sufficient to provide an isocyanate (NCO) concentration of about 33.6 percent by weight.

9. A viscoelastic foam according to claim 1 or 2, said isocyanate in said Part A composition being present in the form of an allophanate-modified MDI prepolymer, said part A composition having an isocyanate (NCO) concentration of about 20-30 percent by weight.

10. A viscoelastic foam according to claim 1 or 2, said amine-based polyether polyol component comprising a mixture of amine-based polyether polyols including monoethanolamine based polyol in an amount of less than 10 parts by weight, triethanol amine based polyol in an amount of 10-30 parts by weight; and ethylenediamine based polyol in an amount of 16-36 parts by weight.

11. A viscoelastic foam according to claim 1 or 2, said catalyst component comprising amine catalyst in an amount of 0.4-2.5 parts by weight, delayed action catalyst in an amount of 0-1 parts by weight, and trimer catalyst in an amount of 0-1 parts by weight.

12. A viscoelastic foam according to claim 11, said amine catalyst being tertiary amine catalyst, said delayed action catalyst being a combination delayed action catalyst, said trimer catalyst being a quaternary ammonium salt trimer catalyst.

13. A viscoelastic foam according to claim 1 or 2, said second polyol being a glycerin based polyether polyol.

14. A viscoelastic foam according to claim 2, said tri-functional polyether polyol being a non-amine based polyether polyol.

15. A method of making a viscoelastic foam comprising the steps of:

- a) providing a Part A composition comprising 20-50 weight percent isocyanate;
- b) providing a Part B composition comprising at least 20 parts by weight amine-based polyether polyol, at least 10 parts by weight of a polyol selected from the group consisting of filled polyether polyols and unfilled polyether polyols, and 0.4-4 parts by weight catalyst; and
- c) combining said Part A and Part B compositions to provide said viscoelastic foam, said viscoelastic foam having an index of 70-130.

16. A method of making a viscoelastic foam comprising the steps of:

- a) providing a Part A composition comprising 20-50 weight percent isocyanate;
- b) providing a Part B composition comprising at least 20 parts by weight amine-based polyether polyol, at least 10 parts by weight of a tri-functional polyether polyol, and 0.4-4 parts by weight catalyst; and
- c) combining said Part A and Part B compositions to provide said viscoelastic foam, said viscoelastic foam having an index of 70-130.

17. A method according to claim 15 or 16, said viscoelastic foam having an index of 90-100.

18. A method according to claim 15 or 16, said Part A composition further comprising about 3 parts by weight water.

19. A method according to claim 15 or 16, said Part A composition further comprising about 6 parts by weight black paste.

20. A method according to claim 15 or 16, said isocyanate in said Part A composition being present in the form of 4,4'-MDI.

21. A method according to claim 20, said 4,4'-MDI being present in said Part A composition an amount sufficient to provide an isocyanate (NCO) concentration of about 33.6 percent by weight in said Part A composition.

22. A method according to claim 15 or 16, said isocyanate in said Part A composition being present in the form of an allophanate-modified MDI prepolymer.

23. A method according to claim 15 or 16, said amine-based polyether polyol component comprising a mixture of amine-based polyether polyols including monoethanolamine based polyol in an amount of less than 10 parts by weight, triethanol amine based polyol in an amount of 10-30 parts by weight; and ethylenediamine based polyol in an amount of 16-36 parts by weight.

24. A method according to claim 15 or 16, said catalyst component comprising amine catalyst in an amount of 0.4-2.5 parts by weight, a delayed action catalyst in an amount of 0-1 parts by weight, and a trimer catalyst in an amount of 0-1 parts by weight.

25. A method according to claim 24, said amine catalysts being tertiary amine catalysts, said delayed action catalyst being a combination delayed action amine/delayed action tin catalyst, and said trimer catalyst being a quaternary ammonium salt trimer catalyst.